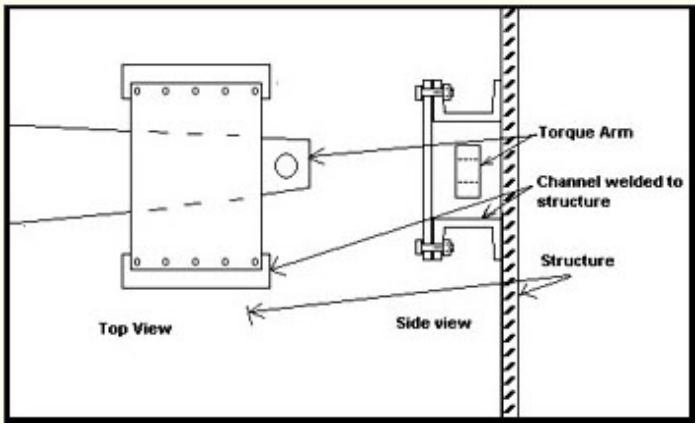
MSHA's Accident Prevention Program
Safety Idea

SAFETY IS A VALUE!

"Torque Arm Hazards"

Category : Conveyors
Mine Type: Underground Coal

In a recent accident, a miner was performing maintenance on a chain conveyor system when the mounting arm (torque arm) for a hydraulic motor broke loose from its anchor point. The mounting arm rotated upward, cutting through the steps on which the victim was standing, striking the victim's left leg and torso resulting in fatal injuries. Many torque arms (rollbacks on belt drives, face conveyor gearcases, etc.) are held in place with multiple fasteners and keyways, or, in the case of slope conveyor rollback devices, are loosely "boxed" in to prevent unwanted rotation. In order to provide an additional level of protection against accidents such as this one, a box consisting of gusseted channels welded to the frame (one above the torque arm, and the other below it) with a bolt-on cover plate that is parallel to the torque arm should be considered. In this way the torque arm is provided with a secondary containment means in the event of a primary mounting failure. This technique may reduce this type of accident in the future.



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Remember – Safety is a Value that you can LIVE with!